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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,066	02/26/2002	Junichi Nakajima	1921-0139P	2679
2292	7590	07/01/2004	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			MCKANE, ELIZABETH L	
			ART UNIT	PAPER NUMBER

1744

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/082,066

Applicant(s)

NAKAJIMA, JUNICHI

Examiner

Leigh McKane

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 6 and 8 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for providing both the film-type and the neutralizing-type corrosion inhibitor to a steam line or steam header, does not reasonably provide enablement for adding both the film-type and the neutralizing-type corrosion inhibitor to the same chemical feeder. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

In fact, the state of the art would have taught against doing this, since filming amines cannot be mixed with other boiler water treatment products and the specification provides no examples how one could mix the two types of treatment products in a single chemical feeder.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Denman et al (U.S. Patent No. 2,889,193).

Denman et al teaches a method of feeding a corrosion inhibitor wherein the inhibitor is fed to a steam line. See col.1, lines 32-36.

5. Claims 1, 3, 5-12, 15, 16, and 18-21 are rejected under 35 U.S.C. 102(b) as being anticipated by McGlone ("The use of amines in steam condensate return lines").

McGlone teaches film-type corrosion inhibitors that may be added directly into the steam line or steam header of a boiler system having condensate lines. See page 6, first paragraph and page 7, first paragraph. The corrosion inhibitor is added using a chemical feeder ("dosage system"). The dosage of the inhibitor is determined by the output of the boiler (page 7, "How much should be dosed?"). McGlone also discloses that isobutanolamine (2-amino-2-methyl-1-propanol) can be used as a neutralizing amine in the boiler system.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 4, 13, 14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGlone.

Although McGlone does not teach precisely where the chemical feeder is attached, it would have been obvious to connect the feeder as close to the boiler as possible in order to dose the chemical to all surfaces of the steam line between the boiler and the condenser or the boiler and the header.

9. Claims 3, 5, 16, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pierce et al (U.S. Patent No. 4,999,161).

Pierce et al teaches a method of corrosion inhibition wherein a film-type corrosion inhibitor is added to a steam line. See col.3, lines 33-38. The inhibitor is added in an amount based on the weight of the steam (col.3, lines 40-45), which corresponds directly to the amount of evaporation in the boiler. Although Pierce et al does not specifically teach a chemical feeder, it is deemed obvious to one of ordinary skill in the art to provide one as a known means of adding a corrosion inhibitor.

10. Claims 3-5 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Denman et al.

With respect to claims 3, 4, and 16-18, although Denman et al teaches adding a film-type corrosion inhibitor to the steam line, it does not disclose a chemical feeder or where in the steam line the inhibitor is added. Regardless, it is deemed obvious to one of ordinary skill in the art to provide a chemical feeder as a known means of adding a corrosion inhibitor. Moreover, it would

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have been obvious to connect the feeder as close to the boiler as possible in order to dose the chemical to all surfaces of the steam line between the boiler and the condenser or the boiler and the header.

As to claims 5 and 19, Denman et al teaches that the inhibitor is added in an amount based upon the weight of steam. See col.5, lines 66-67.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Osipowe (U.S. Patent No. 2,890,928).

Osipowe teaches adding a film-type corrosion inhibitor to a steam header. See col.2, lines 30-33. Although Osipowe does not specifically disclose a chemical feeder, it is deemed obvious to one of ordinary skill in the art to provide a chemical feeder as a known means of adding a corrosion inhibitor.

Response to Arguments

12. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

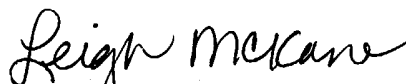
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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leigh McKane whose telephone number is 571-272-1275. The examiner can normally be reached on Monday-Wednesday (7:15 am-4:45 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Warden can be reached on 571-272-1275. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Leigh McKane
Primary Examiner
Art Unit 1744

elm
28 June 2004